

AMENDMENTS TO THE DRAWINGS

Attached hereto are a Replacement Sheet and an Annotated Sheet containing Figures 1 and 2. Figure 2 has been corrected to insert a vertical line to indicate the beginning boundary of the second Ng as required by the Office Action.

Entry of the corrected drawings is respectfully requested.

Attachments: Replacement Sheet
Annotated Sheet

REMARKS

The present Amendment is in response to the Office Action dated August 15, 2005. It should be noted that a substantially similar Office Action was mailed on July 19, 2005, but the July 19th Office Action appears to be superceded by the August 15th Office Action which makes reference to the Supplemental Amendment filed on July 15, 2005. Claims 1-3, 5-7, and 13-16 are pending in the present application. Claims 4 and 8-12 have been cancelled, and claims 1 and 16 are independent.

Drawing Objections

Figure 2 was objected to the Office Action because the beginning boundary of the second Ng was not labeled. As will be seen by the annotated sheet attached hereto, Figure 2 has been corrected to insert a vertical line denoting the beginning boundary of the second Ng. A replacement sheet making the above-described correction is submitted herewith.

Accordingly, entry of the replacement sheet of drawings and the withdrawal of the objection to the drawings are respectfully requested.

Claim Objections

Claims 1-3, 5-7, and 13-15 are objected to because of informalities in claim 1, i.e., "synchronisation" should be "synchronization" and "absolute values" should be "the absolute values."

As will be seen by the above amendments, claim 1 has been amended to overcome the objections. Accordingly, it is respectfully requested that the objections to claims 1-3, 5-7, and 13-15 be withdrawn.

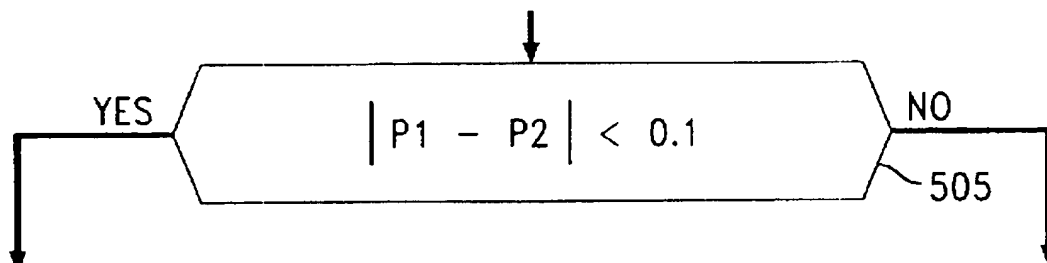
Claim Rejections – 35 U.S.C. § 103

Claims 1-3, 5-7, and 13-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Karim et al. (U. S. Patent 6,501,810 – hereinafter “Karim”). This rejection is respectfully traversed.

As recited in independent claims 1 and 16 of the present application, the present invention relates to generating a synchronization pulse or representing an OFDM symbol boundary by, *inter alia*, deriving the difference between absolute values of samples of the OFDM symbol, which samples are separated by a period corresponding to the useful symbol period.

It is respectfully submitted that Karim does not disclose or suggest a system that recognizes a symbol boundary. Karim at column 4, lines 57-59 merely states that the “cyclic prefix correlator identifies among these samples the one corresponding to the start of a frame P1.” However, there is no reference in Karim to deriving “absolute values” of OFDM samples, and thus, of course, no reference to deriving the difference between such absolute values.

It appears that the Office Action may be equating the values P1 and P2 of Karim with the OFDM sample values specified in the independent claims 1 and 16 of the present application. See, for example, block 505 in Fig. 5, which is reproduced below:



However, P1 and P2 of Karim are not sample values. P1 is a predicted count value representing the estimated start of the next frame (see col. 5, lines 13-18). Block 505 shows the step of taking the absolute value of the difference between two (scalar) start times. This is completely different from taking the difference between the absolute values of two (complex) OFDM sample values.

The Office Action Fails to Establish a *Prima Facie* Case of Obviousness

In order to establish a *prima facie* case of obviousness, a rejection made under 35 U.S.C. § 103 must meet three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the

reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Cited Prior Art Karim Patent Fails to Teach All the Claim Limitations

Applicant respectfully submits that the cited prior art Karim patent fails to teach all the claim limitations of the independent claims 1 and 16. As described above, independent claims 1 and 16 include similar claim limitations directed to an "OFDM signal including useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful symbol period". Accordingly, it is respectfully submitted that since Karim fails to disclose this feature, the cited prior art Karim fails to disclose every claim limitation of the independent claims. The Examiner, therefore, is respectfully requested to withdraw the rejection of independent claims 1 and 16.

Dependent Claims 2, 3, 5-7 and 13-15

The Applicant believes that the dependent claims 2, 3, 5-7 and 13-15 are allowable over the cited prior art for at least the same reasons as independent claim 1 from which they depend.

Conclusion


In view of the above amendment, Applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Richard J. McGrath (Reg. No. 29,195) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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Annotated Sheet

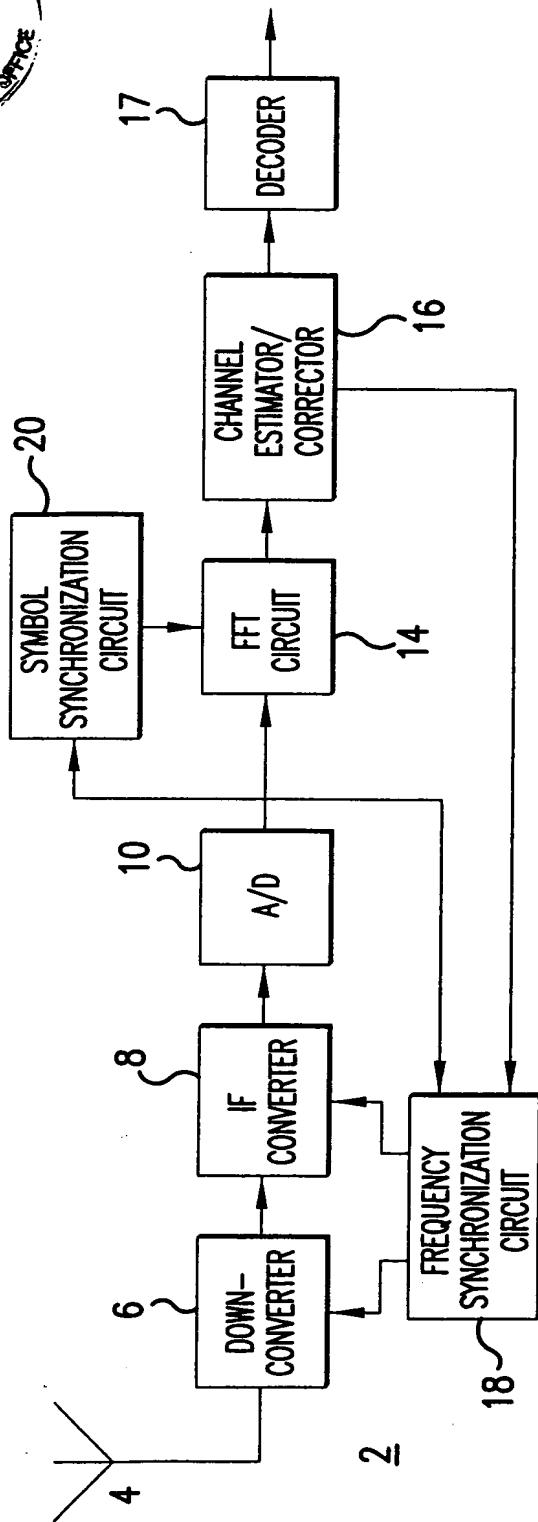


FIG.1
PRIOR AR

